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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,719	08/20/2003	Daniel C. Sawyer	2400/19	8127

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EXAMINER

MILLER, DANIEL H

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 07/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/645,719

Applicant(s)

SAWYER ET AL.

Examiner

Daniel Miller

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1--35 is/are rejected.
- 7) ☒ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/11/05, 5/23/05
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood Jr. (U.S. 5,085,424) in view of Spinney, Jr et al (3,661,687).

Wood teaches a sports surface meant for outdoor use with foam, as required in claim 2, closed celled, as in claim 3, polyethylene cushion, as in claim 5, disposed between a base material (claim 1 and abstract). Wood is silent as to the playing field having an artificial turf top or being composed of beads. Though the reference is silent as to the foam comprising beads it is well known in the art to use beads in foam padding (see Bainbridge et al, U.S. 6357,054, cited below).

Spinney teaches an artificial grass sports surface with a shock-dispersing layer, a cushion layer, and a base (abstract and column figure 1).

It would be obvious to a person of ordinary skill in the art at the time of the invention to substitute the cushion of Wood with the structure of Spinney because they're both cushions for sports surfaces.

Art Unit: 1775

Claims 4, and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood in view of Spinney as applied to claims 1-3 above, and further in view of Bainbridge et al (U.S. 6,357,054 B1).

Wood in view of Spinney teaches all the limitations of claims 1-3 as above, but is silent on the cushion being a spherical bead made of polypropylene foam of respective levels in uniform distribution and being in fluid communication with one another.

Bainbridge discloses a spherical bead of polypropylene foam (as in claim 4) used in a padding either fused or loosely packed together (abstract column 5 line 1-10). The beads are shown in figure 1 uniformly distributed (as in claim 7), in at least two rows (or levels as in claim 6) and are in fluid communication (of claim 8) (figure 3). Further, the pad is used for protection of athlete's thighs and heads (column 6 line 1-15).

It would be obvious to a person of ordinary skill in the art at the time of the invention to combine the two teachings because each one is used as a padding to protect athletes.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood in view of Spinney as applied to claim 1 above.

Wood in view of Spinney teach all the limitations of claim 1 as above and Spinney further teaches option adhesive layers that are moisture proof disposed between the foam and base layers (see description of figure 2).

Art Unit: 1775

It would be obvious to a person of ordinary skill in the art at the time of the invention to combine the two because they're both cushions for sports surfaces.

Claims 10-14, and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood in view of Spinney as applied to claim 1 above, and further in view of Dury (U.S. 4,501,420).

Wood in view of Spinney teach all the limitations of claim 1 as above, but are silent on the presence of feet or their properties.

Dury teaches a playing surface with a resilient carpet and a 2-layer cushion of bonded particulate rubber and foamed polyethylene enveloped in permeable fabric (column 1 line 50-65). The base layer consists of a flat layer and a plurality of drains (feet) that protrude into the ground (figure 1). The base layer comprises of sand and plastic foam chips or particles, instead of rubber particles (column 2 line 35-45).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the structure of Dury with the beads of Wood and Spinney since both are water permeable if unbonded.

With regard to the claim limitation regarding the shape of the channels in claims 14 and 18 and 19 it would be obvious to a person of ordinary skill to at the time of the invention as a matter of choice to choose that configuration absent persuasive evidence that the particular configuration was significant (In re Daily, 357 F.2d 669, 149 USPQ 47 (CCPA 1966)).

Art Unit: 1775

Further, with regard to the limitations of claim 12 and 16 requiring integrally joined members or modular members see *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965) (A claim to a fluid transporting vehicle was rejected as obvious over a prior art reference which differed from the prior art in claiming a brake drum integral with a clamping means, whereas the brake disc and clamp of the prior art comprise several parts rigidly secured together as a single unit. The court affirmed the rejection holding, among other reasons, "that the use of a one piece construction instead of the structure disclosed in [the prior art] would be merely a matter of obvious engineering choice.")

Finally, although the references are silent as to the orientation of the feet when the turf is modularly linked together, absent a showing of criticality with respect to the orientation (result effective variables), it would have been obvious to a person of ordinary skill in the art at the time of the invention to optimize the orientation of the feet through routine experimentation. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Claims 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood in view of Spinney and further in view of Dury as applied to claim 10 above, and even further in view of (Internet ad of Silentwalk 2003).

Art Unit: 1775

Wood in view of Spinney and further in view of Dury teach all the limitations of claim 10 as above but are silent on the use of non permeable barrier at the bottom of drain (feet).

Silentwalk teaches a non water permeable barrier liner at the bottom of a floor padding (page 1).

The barrier is disposed on the bottom of the pad and it would be obvious to one of ordinary skill in the art at the time of the invention to place this liner at the bottom most portion of any floor covering or synthetic turf, including the bottom of a drain (feet) as in the present application because it to has a mat disposed underneath it that could utilize a water barrier.

Claims 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood in view of Spinney and further in view of Dury as applied to claim 1 and 17 above, and further in view of Mellor (U.S. 4,087,948).

Wood in view of Spinney and further in view of Dury teach all the limitations of claim 1 and 17 as above but are silent on some borders being rounded, as in claim 20, having a plurality of pieces that releasable attach to one another, as in claim 22, the border surfaces being flat, as in claim 21, with pieces being in a male female relationship, as in claim 23, and said pieces being mirror images of one another as in claim 24, and with regards to outer surfaces being smooth or flat as in claim 25.

Mellor teaches an interlocking flooring system with releasable pieces that have a male female relationship and are mirror images of one another, and depicts a flooring having flat edges (figure 1-3). Said edges allow the flooring to lock into place securely (see figure 1).

With regard to the claim limitation regarding the shape of the edges of the turf it would be obvious to a person of ordinary skill to at the time of the invention as a matter of choice to choose that configuration absent persuasive evidence that the particular configuration was significant (In re Daily, 357 F.2d 669, 149 USPQ 47 (CCPA 1966)).

Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood in view of Spinney as applied to claim 1 above, and further in view of Layman et al (U.S. 4,489,115).

Wood in view of Spinney teach all the limitations of claim 1 as above but are silent on having any means of attaching various ends of a synthetic turf including, a plurality of pieces that are releasable attach to one another as in claim 22, with pieces being in a male female relationship as in claim 23. However, synthetic turf must inherently possess some means of attachment when applied to a larger area such as an athletic field since practicality, cost, and shipping factors dictates that the manufacture of synthetic turf be in dimensions smaller than an entire field requiring more than one piece to cover said field.

Art Unit: 1775

Layman teaches a synthetic turf having an interlocking releasable pieces that also has a male female relationship (figure 1).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the connecting system of Layman because Layman is also an artificial turf.

Claims 26-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood in view of Spinney as applied to claim 1 above.

Wood in view of Spinney teach all the limitations of claim 1 as above but are silent as to their physical properties of claims 26-33.

Although the references are silent on the quantities recited in claims 26-33 which describe the density and thickness of the padding as well as bead diameter and percentage of air in padding, absent a showing of criticality with respect to those properties (result effective variables), it would have been obvious to a person of ordinary skill in the art at the time of the invention to optimize those characteristics through routine experimentation. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Art Unit: 1775

Claims 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood in view of Spinney as applied to claim 1 above, and further in view of Dury.

Wood in view of Spinney teach all the limitations of claim 1 as above but are silent as to the mat being porous as in claim 34 and to a porous fabric positioned between the padding and base layer as in claim 35.

Dury teaches one or more water permeable envelopes containing a water permeable base material (sand) (see abstract).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to make the surface permeable to water.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Miller whose telephone number is (571) 272-1534. The examiner can normally be reached on M-F.

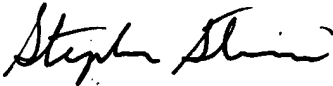
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1775

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel Miller



STEPHEN STEIN
PRIMARY EXAMINER